

DOCKET NO. 00-C-050 (STMI01-00050)
U.S. SERIAL NO. 09/667,164
PATENT

REMARKS

Claim 1-23 were pending in this application.

Claims 1-23 have been rejected.

Claims 1 and 12 have been amended as shown above.

Claims 1-23 remain pending in this application.

Reconsideration and full allowance of Claims 1-23 are respectfully requested.

I. REJECTION UNDER 35 U.S.C. § 102

The Office Action rejects Claims 1-23 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,682,303 to Uya ("*Uya*"). The Office Action also rejects Claims 1-10, 12-21, and 23 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,852,568 to Ranjan ("*Ranjan*"). These rejections are respectfully traversed.

A cited prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. MPEP § 2131; *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). Anticipation is only shown where each and every limitation of the claimed invention is found in a single cited prior art reference. MPEP § 2131; *In re Donohue*, 766 F.2d 531, 534, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985).

Uya recites a parallel binary adder that includes a series of block-adders. (Col. 1, Lines 59-62). Each block-adder includes a first adder for adding arguments assuming "carry input data" equals one and a second adder for adding arguments assuming the "carry input data"

DOCKET NO. 00-C-050 (STMI01-00050)
U.S. SERIAL NO. 09/667,164
PATENT

equals zero. (*Col. 1, Line 59 - Col. 2, Line 6*). Each of the first and second adders generates a sum and a carry-out value. (*Col. 3, Lines 31-42*). The results (sum and carry-out) from one of the two adders is then selected and output based on an input from a previous block-adder. (*Col. 2, Lines 7-11*).

Uya simply recites the use of multiple adders in a block-adder, where each adder generates a single sum and a single carry-out value. The sum and carry-out from one of the adders is then selected and sent to another block-adder. *Uya* lacks any mention of providing both carry-out values produced by both adders to another block-adder. In particular, *Uya* lacks any mention of an "adder cell" that is operable to "provide the first and second conditional carry-out bits to another of said adder cells" as recited in Claims 1 and 12. *Uya* also lacks any mention of "propagating the $C_X(1)$ bit [a first conditional carry-out bit] and the $C_X(0)$ bit [a second conditional carry-out bit] to a second adder cell in the first row of adder cells" as recited in Claim 23. As a result, *Uya* fails to anticipate all elements of Claims 1, 12, and 23.

For these reasons, the Office Action does not show that *Uya* anticipates the Applicant's invention recited in Claims 1, 12, and 23 (and their dependent claims).

Ranjan recites an adder system that includes one or more adder block subsystems. (*Abstract*). Each adder block subsystem includes an adder circuit block, which includes a conditional sum-select circuit and a conditional carry-select circuit. (*Col. 5, Lines 18-25*). The conditional sum-select circuit includes logic adders (elements 395a-395h). (*Col. 7, Lines 63-65*). The conditional carry-select circuit includes logic OR subcircuits (elements 440a-440h) and logic AND subcircuits (elements 450a-450h). (*Col. 9, Lines 52-53*).

DOCKET No. 00-C-050 (STM101-00050)
U.S. SERIAL No. 09/667,164
PATENT

The Office Action does not identify the specific components in *Ranjan* relied upon as anticipating the "adder cells" of Claims 1, 12, and 23. The only adders in *Ranjan* are the logic adders, which clearly do not "generate both a first conditional carry-out bit, $C_X(1)$, and a second conditional carry-out bit, $C_X(0)$ " and "provide the first and second conditional carry-out bits to another of said adder cells" as recited in Claims 1 and 12. The logic adders of *Ranjan* also are not capable of "propagating the $C_X(1)$ bit and the $C_X(0)$ bit to a second adder cell in the first row of adder cells" as recited in Claim 23.

For these reasons, the Office Action does not show that *Ranjan* anticipates the Applicant's invention recited in Claims 1, 12, and 23 (and their dependent claims).

Accordingly, the Applicant respectfully requests withdrawal of the § 102 rejections and full allowance of Claims 1-23.

II. REJECTION UNDER 35 U.S.C. § 103

The Office Action rejects Claims 11 and 22 under 35 U.S.C. § 103(a) as being unpatentable over *Ranjan* in view of U.S. Patent No. 4,623,982 to Ware ("*Ware*"). This rejection is respectfully traversed.

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. MPEP § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re*

DOCKET No. 00-C-050 (STM101-00050)
U.S. SERIAL NO. 09/667,164
PATENT

Piasecki, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984). Only when a *prima facie* case of obviousness is established does the burden shift to the applicant to produce evidence of nonobviousness. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985).

A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. MPEP § 2142.

As described above, the Office Action does not show that *Ranjan* recites particular elements of Claims 1 and 12. *Ware* is cited by the Office Action only as showing a particular arrangement of adder cells. *Ware* is not cited by the Office Action as disclosing, teaching, or

DOCKET No. 00-C-050 (STM01-00050)
U.S. SERIAL No. 09/667,164
PATENT

suggesting any elements of Claims 1 and 12. As a result, the Office Action does not show that the proposed *Ranjan-Ware* combination discloses, teaches, or suggests all elements of Claims 1 and 12 (and therefore Claim 11 depending from Claim 1 and Claim 22 depending from Claim 12).

Accordingly, the Applicant respectfully requests withdrawal of the § 103(a) rejection and full allowance of Claims 11 and 22.

III. CONCLUSION

As a result of the foregoing, the Applicant asserts that all pending claims in the application are in condition for allowance and respectfully requests an early allowance of such claims.

DOCKET No. 00-C-050 (STMI01-00050)
U.S. SERIAL No. 09/667,164
PATENT

SUMMARY

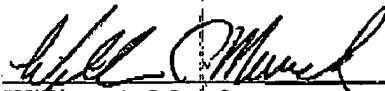
If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at *wmunck@davismunck.com*.

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Davis Munck Deposit Account No. 50-0208. No extension of time is believed to be necessary. If an extension of time is needed, however, the extension is requested. Please charge the fee for the extension to Deposit Account No. 50-0208.

Respectfully submitted,

DAVIS MUNCK, P.C.

Date: October 7, 2003



William A. Munck
Registration No. 39,308

Docket Clerk
P.O. Box 802432
Dallas, Texas 75380
Tel: (972) 628-3600
Fax: (972) 628-3616
Email: *wmunck@davismunck.com*